

# Centre County Kepone Superfund Site

State College, Centre County, Pennsylvania



August 2000 ♦ U.S. Environmental Protection Agency ♦ Community Update

## EPA PROPOSES CHANGE TO CLEANUP PLAN

EPA is proposing to change the cleanup plan for the Centre County Kepone Superfund Site. (Also known as "the Site").

### CLEANUP OF SOILS AND RISK BASED CONCENTRATIONS

Originally, EPA decided to dig up all contaminated soils and dispose of them at a landfill. Now, EPA proposes to reduce the amount of contaminated soils to be dug up and instead clean up the majority of contaminated soils in-place using a method called soil vapor extraction, or SVE. In limited areas where bedrock is near the surface, excavation will still be performed to remove contamination. In addition, the cleanup standard for soils will be modified to correspond with the Commonwealth of Pennsylvania's Act II standards. EPA is also proposing to eliminate the risk based concentration, or ("RBC"), of 160 ppb for Kepone for the purposes of classifying soils containing a RCRA listed waste.

### CLEANUP OF GROUNDWATER, THORNTON SPRING SURFACE WATER, AND THERMAL REGIME IN SPRING CREEK

Since the issuance of the April 1995 Record of Decision ("ROD"), several policy and regulatory changes have been made at both the Federal and State levels. As a result, EPA is proposing to modify the cleanup standard for groundwater from "background" levels to Federal Maximum Contaminant Levels and risk-based concentrations. EPA is also proposing to eliminate the requirements for a 20% reduction each year and the NPDES discharge regulations for contaminants in Thornton Spring surface water.

The last proposed change is to clarify the requirement for maintaining the background thermal regime in Spring Creek. EPA is proposing to reference the current State guidelines (PADEP document Implementation Guidance for Temperature Criteria, March 1995 and October 1997).

### PUBLIC MEETING

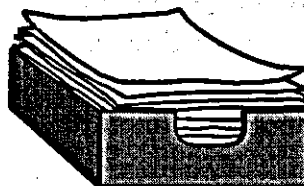
on EPA's Proposed Change

August 28, 2000 at 7:30 p.m.

Mount Nittany Middle School

656 Brandywine Drive ♦ State College, PA

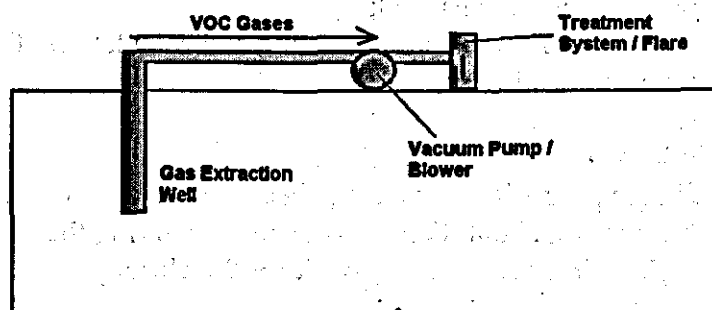
**EPA will hold a meeting and public comment period on this proposal.**



**For Your Information:**

### **Q: What is SVE?**

**A:** SVE stands for Soil Vapor Extraction. As the name suggests, SVE *extracts* contaminants from the soil in vapor form. SVE removes volatile organic compounds (VOCs) and some semi-volatile organic compounds (SVOCs) from soil beneath the ground surface in the unsaturated zone—that part of the subsurface located above the water table. The system works by applying a vacuum through a system of wells to pull contaminants to the surface as a vapor or gas.



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### What's New?

EPA, in consultation with the Pennsylvania Department of Environmental Protection, has developed a new approach. The new approach relates primarily to the subsurface soil component of the OU1 remedy and includes:

- ❖ In-situ treatment by SVE to remove VOCs from the Former Drum Staging Area, the Designated Outdoor Storage Area, and the Tank Farm/Building #1 Area;
- ❖ Construction of low permeability pavement covers in SVE areas;
- ❖ Soil excavation in areas of shallow bedrock (less than 6 feet);
- ❖ Soil cleanup levels based on the Commonwealth of Pennsylvania's Act II methodology;
- ❖ Eliminating the risk based concentration of 160 ppb for kepone;
- ❖ Modifying the groundwater cleanup standard from background to federal MCLs and risk-based numbers;
- ❖ Eliminating the 20% reduction each year requirement and NPDES discharge regulations for contaminants in Thornton Spring surface water; and;
- ❖ Clarifying the Spring Creek thermal regime requirement to reference current State guidance.

### What Stays the Same?

The rest of the cleanup plan would remain the same. EPA would still require the following:

- ❖ Extraction and treatment of contaminated groundwater at the property;
- ❖ Long-term groundwater, surface water, fish tissue, and stream channel monitoring;
- ❖ Surficial soil sampling of the former spray field and calculation of environmental risks;
- ❖ Improvements to the surface water drainage system;
- ❖ Excavation and off-Site disposal of contaminated sediments;
- ❖ On-Site and off-Site fencing;
- ❖ Deed restrictions, and;
- ❖ Off-Site riparian area sampling and calculation of environmental risks.

### Why Do Something Different?

EPA is proposing this change because additional information about SVE was discovered during the engineering and planning work for the cleanup.

### 30-Day Public Comment Period

You can let EPA know what you think about the proposal during the 30-day public comment period beginning August 16, 2000 and ending September 14, 2000. During that time you can mail your comments to EPA at the address on page four. No decisions or changes will be made until after the comment period ends. Once the comment period closes, EPA addresses issues raised during the comment period. EPA will present its proposal at a public meeting on August 28, 2000. All community members are invited to attend and participate.



### EPA's Earlier Plans

EPA's decision on how to address contamination is outlined in the April 21, 1995, Record of Decision (ROD) for Operable Unit One (OU1). A ROD is a legal document that formally states EPA's chosen cleanup plan for a site. An Operable Unit is a cluster of site work.

### Additional Studies Revealed More Information...

RÜTGERS Organics Corporation (ROC), the responsible party performing the cleanup, completed additional investigations at the Site during the design and performed short and long-term pilot tests of SVE.

Specific information acquired during the design phase included:

- ❖ Pilot test results showed that SVE enhanced via hydraulic fracturing is an effective way to withdraw large quantities of VOCs from the subsurface soil.
- ❖ Enhanced SVE can be used in the active plant area without impact to structures or utilities.
- ❖ The volume of soil to be addressed via excavation and off-Site disposal has doubled, leading to a significant increase in the ROD remedy cost estimate.
- ❖ Significant policy and regulatory changes have occurred since the ROD was issued in 1995.

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❖ The groundwater treatment plant effluent will have no significant impact to the thermal regime of Spring Creek.

## EVALUATION OF PROPOSED CHANGES

The objective for cleaning up the soil at the Site remains unchanged: to reduce leaching of contaminants from subsurface soil so as to be protective of groundwater. The Alternate Remedy includes cleaning up the majority of subsurface soils using SVE. Limited excavation remains for those areas where bedrock is shallow and SVE cannot be effectively used.

SVE provides a high degree of protection of human health and the environment because it has a greater potential for removing substantially more mass of VOC from the subsurface soil which could possibly impact groundwater. This is because SVE has the potential to remove contamination in areas where excavation cannot be implemented such as in unsaturated bedrock and under existing buildings. Constructing pavement in SVE areas will reduce the amount of rain water through the soil and improve the efficiency of the system.

The proposed changes will comply with all local, State and Federal regulations. It will also provide a higher long-term effectiveness and permanence than the OU1 ROD remedy. The cleanup goals in this proposal are less stringent than in the original cleanup plan, however, the extraction and treatment of groundwater is more integral to providing overall protection of groundwater than either of the soil remedies. All contaminated soil is located within the capture zone of the ground water pump-and-treat system.

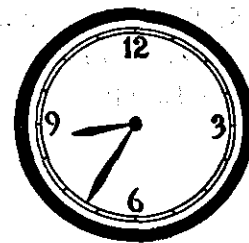
The performance of SVE can be assessed through a number of methods including direct subsurface sampling, calculations of mass removal via the SVE system, and asymptotic performance monitoring, details of which will be developed in the design stage.

The proposed change has only limited short-term effectiveness concerns even though it will take longer to implement. Conversely, there are serious potential short-term impacts associated with the OU1 ROD remedy as a result of the anticipated need to control

VOC/dust/odors during excavation, disruption of plant activities, and health and safety concerns for remediation workers, plant employees, and potential off-site receptors.

## Time Schedule

We estimate that the original cleanup plan can be carried out within a twelve month period. The alternative remedy is expected to take approximately three and one-half years.



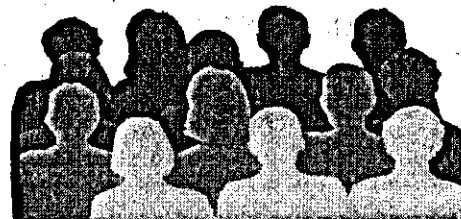
## Costs

The cost to complete the clean-up of soil without the changes has significantly increased from the \$4.4 million ROD estimate to \$13.5 million primarily as a result of excavating a larger volume and providing treatment prior to disposal. The estimate to implement the proposed Alternate Remedy is about \$2 million. If the changes are included, ROC will save over \$10 million. To date, ROC has spent almost \$5 million in actual clean-up costs in the last year.



## Proposal Support

The Pennsylvania Department of Environmental Protection assisted with developing the new proposal and supports this alternative approach.



This summary is not a legal or technical document. The new proposal to change the way soils are addressed is formally described in a legal document called 'Proposed Amendment No. 1 to the Record of Decision for Operable Unit One'. A copy of this draft legal document is available in public information files kept at the following locations. These files contain copies of the ROD for Operable Unit One, plus documents that EPA used in making its cleanup decisions. The files are also called the "Administrative Record", and are available here:

AR-310965

**Schlow Memorial Library**

100 East Beaver Avenue  
State College, PA 16801  
(814) 237-6236

Mon.-Wed. - 9 a.m. to 9 p.m.

Thur.- noon to 9 p.m.

Fri.- 9 a.m. to 6 p.m.

Sat.- 9 a.m. to 5 p.m.

Sun.- 1:30 p.m. to 5 p.m. (Sept. to May)



and

**U.S. Environmental Protection Agency, Region III**  
Administrative Record Room, 6th Floor  
1650 Arch Street, Philadelphia, PA 19103

Please contact Anna Butch for an appointment.

(215) 814-3157

Weekdays - 8:30 a.m. to 4:30 p.m.

**EPA Contact**

If you have any questions or want to be added to EPA's mailing list for this site, please contact:

**(800) 553-2509 or (215) 814-3327**

**David Polish, Community Involvement Coordinator**

**Additional Comment Period Information**

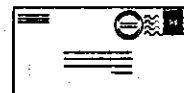
A public meeting to discuss the proposed Amendment will be held on August 28, 2000 at 7:30 p.m. in the Mount Nittany Middle School. A stenographer will be at the meeting so that you can make your comments orally, if you'd prefer. A public notice announcing the start of the comment period will be published in the Centre Daily Times. The 30-day public comment period runs from August 16, 2000 to September 14, 2000. Comments should be postmarked by September 14 and sent to:

**Frank Klanchar, RPM (3HS22)**

**U.S. EPA, Region III**

**1650 Arch Street**

**Philadelphia, PA 19103**



**Centre County Kepone Superfund Site: New Proposal and Public Meeting**

**U.S. Environmental Protection Agency**

**Region III (Polish / 3HS43)**

**1650 Arch Street**

**Philadelphia, PA 19103**

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